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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/072,456 | 02/07/2002 | Pete Smith | 068363.0136 | 1848 |

7590 04/02/2004

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EXAMINER

FRANK, RODNEY T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2856

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,456

Applicant(s)

SMITH ET AL.

Examiner

Rodney T. Frank

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10, 12-18 and 47-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10, 12-18 and 47-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12 December 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 7, which now depends from claim 47, the claim states that "...a surface of the first layer forms the first surface of the display device." How is this true? The first layer of the base is a part of the testing apparatus, which appears to be the first surface that the claim is referring to, while the display device is the item to be tested which is completely separate from the testing device, as evidenced from the vacuum box that must secure the display device to the testing device. Therefore, the examiner is unclear how the surface of the testing device can also form a surface of the device under test since they are two separate things. Clarification is required or the claim should be canceled.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 2, 3, 8, 10, 12, 15, 16, 47, 48, and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Takekoshi et al. (U.S. Patent Number 5,801,545; hereinafter referred to as Takekoshi). Takekoshi discloses an LCD assembly testing apparatus having a table for supporting

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the LCD assembly and for applying light to the back of the LCD assembly, and a transport mechanism for removing the LCD assembly from a cassette and transporting the LCD assembly onto the table. The transport mechanism has an arm for holding the LCD assembly, a first lift mechanism for vertical moving the arm, and a pre-alignment mechanism for receiving the LCD assembly and preliminary aligning the LCD assembly with the table. The pre-alignment mechanism has a plurality of support rollers for supporting the LCD assembly in a substantially horizontal position, four pairs of positioning rollers having axes intersecting at substantially right angles and located at level higher than the support rollers, for allowing the LCD assembly to fall naturally onto the support rollers and for holding corners of the LCD assembly, and a second lift mechanism for moving upwards the positioning rollers and the support rollers as the first lift mechanism moves the arm downwards (Please see the abstract).

Commenting first on independent claim 47, Takekoshi discloses and shows in reference to figures 7, 13, and 14 a system for testing a LCD display device comprising a base (item 257 in figure 7) having a first surface, a first plurality of at least four apertures operable to couple the display device to the first surface of the base and further optimally counterbalance gravitational forces on the LCD in maintaining the coupling between the LCD and the base during device testing.

In reference to claim 2, the base is disclosed to be a vacuum box, since as disclosed in column 11 lines 50-55 that the LCD assembly S is supported by support sections which are evacuated through exhaust holes and the LCD is attracted at two sides to the holder.

In reference to claim 3, the display is coupled by a pressure differential since that what a vacuum is.

In reference to claim 8, the apertures are arranged as a rectangle, as shown in figure 7.

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In reference to claim 10, figure 7 shows that transfer mechanism 253 has guide rods 253D which, according to column 8 lines 6-15, go through holes in rotating table 256 and in support plate 257. Therefore, a second plurality of apertures formed in the base 257 at which the display device is not coupled is disclosed.

Commenting now on independent claim 48, Takekoshi discloses and shows in reference to figures 7, 13, and 14 a system for testing a LCD display device comprising a vacuum box including a first surface (holder 254 in figure 7) with the first surface operable to couple the first layer of the LCD device to the vacuum box and further operable to maintain the display substantially free from distortion forces in a predetermined position during testing.

In reference to claim 12, the vacuum box is mounted on a rotating base (item 256 in figure 7).

In reference to claim 15, the first surface of the vacuum box defines at least two apertures and the first layer of the display device is coupled to the first surface of the vacuum box at the at least two apertures (see figure 13 with apertures 254C, as well as the disclosure at column 9 lines 3 through 10).

In reference to claim 16, since a vacuum is used, then a pressure differential is also used since a vacuum would cause such.

Commenting now on independent claim 49, Takekoshi discloses and shows in reference to figures 7, 13, and 14 a system for testing a LCD display device comprising a vacuum box, a cover operably coupled to the vacuum box (item 254A in figure 13) where the cover has a plurality of apertures disposed proximate a first side of the cover, the apertures arranged in a substantially rectangular pattern (see figure 13), and the apertures operable to couple the display device to the

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vacuum box during testing such that the display is maintained in a predetermined position relative a display testing apparatus substantially free from tensile forces.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-6, 9, 13, 14, 17, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Takekoshi et al.

7. In reference to claims 4-6, though these specific limitations of the LCD display are not disclosed, these limitations are viewed as design choices that are well within the preview of one of ordinary skill in the art.

In reference to claim 9, the spacing of the apertures for the support members is considered a design choice well within the preview of one of ordinary skill in the art.

In reference to claim 13, the cover for the vacuum box is disclosed, but it is not disclosed that said cover is a vacuum block. This is however seen as a design choice to make the cover a vacuum block and would be obvious to one of ordinary skill in the art.

In reference to claim 14, the display device is simply disclosed to be a LCD. Since a LCD could be used as a micro display, then this limitations is considered to be obvious in view of the reference.

In reference to claims 17 and 18, though the exact and specific movement claimed is not disclosed exactly, the movement of the device is disclosed in the reference and the specific

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movements as desired in the claims are viewed as a design choice well within the preview of one of ordinary skill in the art.

Response to Arguments

8. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney T. Frank whose telephone number is (571) 272-2193. The examiner can normally be reached on M-F 9am -5:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTF

March 24, 2004



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
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